REMARKS

Claims 3-5 and 11-14 are pending in the subject application. By this Amendment, applicants have amended claims 3, 11, 13 and 14. Support for the amendment to claim 3 may be found *inter alia* in the specification at page 29, lines 5-14. Applicants maintain that the amendments of claims 11, 13 and 14 address formalities, and that the amendments herein raise no issue of new matter and are fully supported by the specification as filed. Applicants respectfully request that this Amendment be entered. Upon entry of this Amendment, claims 3-5 and 11-14 will still be pending and under examination.

Rejection under 35 U.S.C. §112, Second Paragraph

The Examiner rejected claims 11, 13 and 14 under 35 U.S.C. §112, second paragraph, as allegedly lacking sufficient antecedent basis for the limitation, "inhibitor." Specifically, the Examiner asserted that claims 11, 13 and 14 depend on claim 3 which fails to recite "inhibitor."

In response to the Examiner's rejection, but without conceding the correctness thereof, applicants note that amended claims 11, 13 and 14 no longer recite "inhibitor."

Rejection under 35 U.S.C. §112, First Paragraph

The Examiner rejected claims 3-5 and 11-14 under 35 U.S.C. §112, first paragraph, as allegedly not enabled.

Applicants respectfully traverse the Examiner's rejection. Amended claims 3-5 and 11-14 provide a method for preventing exaggerated restenosis in a diabetic subject at risk of developing exaggerated restenosis which comprises administering to the subject a therapeutically effective amount of sRAGE so as to prevent exaggerated restenosis in the subject.

The test for enablement under 35 U.S.C. §112, first paragraph, is whether the disclosure contains sufficient information regarding the subject matter of the claims to enable one skilled in the relevant art to practice the claimed invention without undue experimentation.

The Examiner concedes on page 2 of the May 18, 2004 Office Action that the specification is enabling for reduction of smooth muscle proliferation and migration in carotid artery by treating a Fatty Zucker rat having carotid artery ballon injury with sRAGE via intraperitoneal injection. However, the Examiner asserts that the specification does not provide adequate guidance and evidence that any sRAGE can prevent exaggerated restenosis in a diabetic subject. The Examiner also asserts that the specification fails to provide detailed information for the structural feature of sRAGE that contributes to prevent exaggerated restenosis.

In response, applicants respectfully point out that the Examiner's assertion of a lack of enablement is contrary to the Examiner's own comments in the April 10, 2002 Office Action. There, the Examiner conceded that the specification *is* enabling for preventing exaggerated restenosis in a diabetic subject by administering sRAGE to the subject.

Specifically on page 6, the Examiner stated that the "specification fails to provide adequate guidance and evidence for how to inhibit new tissue growth or neointimal formation in blood vessels in a subject or preventing exaggerated restenosis in a diabetic subject by administering to said subject ... any polypeptide inhibitor of RAGE other than sRAGE *in vivo*." (emphasis added).

On page 7, the Examiner stated that "[i]n view of the lack of detailed information regarding the structural and functional requirements of the polypeptide inhibitor of RAGE, and the unpredictability of polypeptide function from mere amino acid sequence, it would be unpredictable [whether] any polypeptide other than sRAGE ... would function as inhibitor of RAGE to inhibit new tissue growth or neointimal formation in blood vessels in a subject or preventing exaggerated restenosis in a diabetic subject *in vivo*." (emphasis added).

Further, applicants are not aware of any requirement under 35 U.S.C. §112, first paragraph, that mandates providing human experimental data in order to enable claims supported by data from an animal model, provided that the animal model adequately represents a human subject with respect to the disease in question. Applicants maintain that the disclosed rats are an adequate representation of humans suffering from diabetes. The Zucker fatty rat was studied because it is a model of insulin resistance, hyperglycemia, hyperlipidemia and obesity. This model, in certain respects, at least, typifies the characteristics of human subjects with type 2 diabetes. (See page 29, lines 32-33 and page 30, line 1). Applicants maintain that the data presented in the

specification using this model would be expected to correlate with human results.

In an attempt to show otherwise, the Examiner cites Gura (Science 278:1041-1042, 1997). However, this reference is inapposite to the claimed invention because the reference relates to animal models of *cancer*, and not animal models of diabetes.

Applicants therefore maintain that additional (e.g. human) data are not required, and that the experimental data disclosed in the subject application are sufficient to evidence enablement of the pending claims. Indeed, section 2164.02 of the M.P.E.P. states that an "in vitro or in vivo animal model example in the specification, in effect, constitutes a 'working example' if that example 'correlates' with a disclosed or claimed method invention." The Examiner concedes that the instant claims are enabling for the reduction of smooth muscle proliferation and migration in carotid artery by treating Fatty Zucker rat with soluble RAGE (sRAGE) via intraperitoneal injection. Applicants assert that at the very least, these methods and their results in mice would be expected to "correlate" with such methods and their results in humans. The Examiner has failed to set forth art indicating a lack of correlation between the animal model example disclosed in the specification and the claimed methods for treating subjects including humans.

Accordingly, applicants maintain that claims 3-5 and 11-14 satisfy the requirements of 35 U.S.C. §112, first paragraph.

Summary

For the reasons set forth hereinabove, applicants maintain that the claims pending are in condition for allowance, and respectfully request allowance.

If a telephone interview would be of assistance in advancing prosecution of the subject application, applicants' undersigned attorneys invite the Examiner to telephone them at the number provided below.

No fee is deemed necessary in connection with the filing of this Amendment. However, if any fee is required, authorization is hereby given to charge the amount of such fee to Deposit Account No. 03-3125.

Respectfully submitted,

I hereby certify that this correspondence is being deposited this date with the U.S. Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA, 22313-1450.

8/18/04
Alan J. Morrison Date
Reg. No. 37,399

John P. White
Registration No. 28,678
Alan J. Morrison
Registration No. 37,399
Attorneys for Applicants
Cooper & Dunham LLP
1185 Avenue of the Americas
New York, New York 10036
Tel. No. (212) 278-0400